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GEOGRAPHIC SCHOOL BULLETINS

Published Weekly by

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Volker-Mastalka

PEACETIME AUSTRIANS OF THE SALZKAMMERGUT WEAR A WARLIKE HEADDRESS

For a peaceful prewar holiday in Mondsee in the Salzkammergut, these smiling, buxom Austrians wear flaring golden caps reminiscent of Brunhilde, the Valkyrie of opera and legend. Their friendly expressions are out of character, for Valkyries, according to tradition, hovered over battlefields and marked those to be killed. Although dirndls, black velvet bodices, and white blouses are in the "peasant" tradition, the gold mesh headdresses—called "gold hoods of Linz"—indicate that the wearers are from well-to-do families. The golden caps are heirlooms worn only on special occasions, and handed down from mother to daughter (Bulletin No. 2)

GEOGRAPHIC SCHOOL BULLETIN

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic School Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers in the United States and its possessions for one year upon receipt of 25 cents (stamps or money order); in Canada, 50 cents. Originally entered as second-class matter January 27, 1922; re-entered as of April 27, 1943, Post Office, Washington, D. C., under Act of March 3, 1879. Copyright, 1945, by National Geographic Society, Washington 6, D. C. International copyright secured. All rights reserved. Quedan reservados todos los derechos.

Weser River Poorly Suited to Defense; Its Cities Fall

THE Weser River, parallel to and about 125 miles east of the Rhine (Rhein), is not a suitable basis for a continuous defense line because it is broken into smaller tributaries for a great deal of its length. The southern headwaters, as well as the broad lower Weser itself, were easily crossed by Allied forces.

Kassel, Fulda, and Eisenach are three of the many cities and towns on the Weser system that have fallen to or been by-passed by the surging U. S. Third Army. Hameln, Hannover, Brunswick (Braunschweig), and Bremen (illustration, next page) are other major Weser basin cities to the north.

Hesse-Kassel Area Supplied Hessians Who Fought George Washington

The Weser, dividing northwestern and north-central Germany, is formed at Münden in Prussia's Hannover province by the junction of the Werra and Fulda rivers. It winds nearly 300 miles in its northward course to its North Sea outlet at Bremerhaven, 155 air miles from Münden. As it nears Bremen on the North German Plain, it is almost doubled in volume by the Aller-Leine tributary. Along its 42-mile course from Bremen, Germany's second port, to the sea, the Weser is dredged to accommodate large ocean vessels. The largest, however, must dock at Bremerhaven.

Small boats and barges move on the Weser to Münden and into the two tributaries. The Werra, longer of the two, cuts through the Thuringer Wald hills from its source near Eisfeld. A canoe trip from Eisfeld to Bremerhaven would measure almost exactly double the airline distance of 240 miles.

The Fulda, flowing along meadowland valleys from its source near Fulda, is joined by the Eder a few miles above Kassel. Waters from a big impounding dam on the Eder, blasted in May, 1943, by RAF bombers, poured into the Fulda valley, flooding Kassel's big waterside industrial section and the towns of the upper Weser valley.

Kassel was the home of the Hessian mercenaries who fought against America's Revolutionary patriots. In 1776, Frederick II, ruler of Hesse-Kassel, negotiated an arrangement for improving the finances of his small, independent state by hiring out 22,000 Hessian troops to England. Their first job was to occupy New York.

Kassel's Fame Industrial; Hameln's Legendary

Kassel, in modern times, has been the capital of the Prussian province of Hesse-Nassau, formed in 1866 when Prussia annexed Hesse-Kassel and part of Nassau. The city lies 115 air miles east of Cologne and 190 air miles southwest of Berlin. It was a frequent target of Allied bombers because of its railroad equipment and other vital industries, supporting a quarter-million people in Kassel and its satellite communities.

The Henschel locomotive plant at Kassel was perhaps the largest in Europe, and had built tens of thousands of railway engines for lines of varying gauge throughout Europe, Asia, and Africa in its century of existence. The city's plants also made freight and passenger cars, ammunition, drugs and chemicals, glider planes, textiles, optical goods, and scientific instruments.

Kassel's tourist landmarks, spread on the landscaped slopes west of the Fulda, included an art gallery with works by Rembrandt, Rubens, and van Dyck; a

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Spence Air Photos

LIKE SPIDERS WEAVING A WEB BETWEEN GATEPOSTS, MEN STRUNG STEEL ACROSS THE GOLDEN GATE

This delicate-looking structure is the world's largest single-span suspension bridge. The two towers are nearly as high as New York City's Woolworth Building. About four-fifths of a mile separate them, and the roadway soars some 250 feet above the water. In the shadow of Golden Gate Bridge and completely dwarfed by it is Fort Winfield Scott, which protected San Francisco during the last century. In foreground is the northernmost tip of the Presidio. Across the strait is Marin County, California, beginning of the Redwood country (Bulletin No. 4).

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Soviets Reach Once-Great Austria, Reduced by World War I

AUSTRIA, invaded by Soviet armies, lies at the mountainous core of Europe. Its central position has brought many wars and occasional wealth and power. Since 1914, however, Austria has known little but war's desolation and political and economic adversity.

No other European country was so carved up by the treaties that followed the First World War as was the near-mighty empire called Austria-Hungary. Before that war it was a patchwork union of more than a dozen nationalities with an area matching Texas and with 51 million subjects. It included Bohemia, Moravia, Galicia, Bucovina, Transylvania, Bosnia, Dalmatia, Croatia, Istria, the entire Tyrol—states and areas that completely buffered Austria and Hungary.

Post-1918 Austria Was Vienna and Mountains

At Sarajevo in Bosnia, just within the southernmost corner of the empire, came its crisis on June 28, 1914, when Serbian nationalists ignited the European tinderbox by assassinating the heir to Austria's crown. Four and a half years later Austria was reduced to a republic the size of Maine (one-eighth the size of Texas) with less than seven million people. Chunks of the former empire had gone to create new states and to enlarge old ones—Poland, Czechoslovakia, Romania, Yugoslavia, and Italy. Austria had been reduced to its German-speaking core.

Vienna (Wien), Austria's music-loving capital, with nearly two million people, ranked sixth among Europe's prewar cities by virtue of its position as the hub of rail, highway, and water routes to every corner of the continent and because of its long tenure as capital of an empire.

This German-speaking core, set up as an independent state in 1918 but reduced to a province of the Nazi Reich in 1938, can be envisioned on the map as a much-nibbled pear. On the west it adjoins Switzerland and tiny Liechtenstein, and Lake Constance (Boden See) is its stem. On the east is Hungary, and Vienna is its blossom end. Yugoslavia and Italy border on the south, Czechoslovakia on the north and east, Germany on the north (map, next page).

Hardly more than Vienna and environs compared with the pre-1914 empire, Austria had limited natural resources and no seacoast. Four-fifths mountainous, with Alpine ridges running eastward right to the outskirts of Vienna, it had beauty like Switzerland's that has made tourist entertainment a major industry in all seasons. Well engineered highways and electrified rail lines enabled sedentary tourists to see nearly all the grandeur. Footpaths, ski lifts, cable cars, and mountain cascades were routes for the more vigorous to points high among the 10,000-foot peaks.

Corn, wheat, and grapes are grown intensively in the limited flat land of the Danube (Donau) River basin and the eastern border adjoining the plains of Hungary. Grains, fruit, and hops are grown in high mountain valleys; on the slopes livestock graze. Timber is cut in mountain forests to supply an important export trade.

Vienna Shared Music Spotlight with Salzburg

Peacetime visitors to Austria found everywhere in the rugged countryside an abundance of color. Nature provided it in snow-capped peaks changing with shifting sun and clouds, in varying greens of forests, and meadows mottled with flowers, in rock grays, and deep-lake blues. Man added to it by gaily decorating his village steeples and houses, his farm buildings and chalets, and his clothes.

Vienna, with one-fourth of Austria's population, was the smallest of nine provinces which composed the republic. Renowned as the birthplace of Schubert, the workshop of Brahms, Beethoven, Schumann, Haydn, Mozart, Johann Strauss, and a host of other famous musicians, its name never fails to suggest music and dancing. The Viennese have been ready patrons not to music alone but to all the arts. The city's opera and theaters have produced famous artists. Its great university was known particularly for excellent technical and medical schools and clinics.

But Vienna became large because industry was stimulated by trade routes. The city lies on the Danube thoroughfare from Germany to the Black Sea; on the ancient "amber route" from the northeast and the Baltic; and on the route that goes southwest past the airplane and locomotive manufacturing center of Wiener Neustadt (Viennese New City) through the Semmering Pass to Trieste on the Adriatic. Rail and highway routes extend westward through

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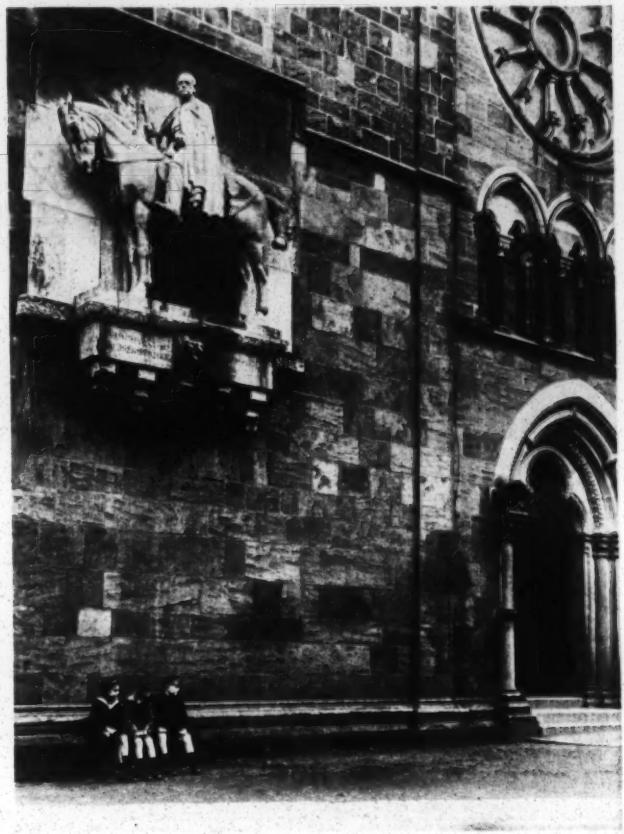
state library with more than 300,000 volumes, directed a century ago by the Grimm brothers of fairy tale fame; the Wilhelmshöhe, Bellevue, and Orangery palaces. Frankish Chassala, which stood on the site a thousand years ago, gave the city its name.

From Münden to Minden, upper half of the Weser proper, the river roams northward through wooded hills of unspoiled beauty, its shores dotted with neat villages and towns, old churches and monasteries. At least two of the towns nestled on the Weser's east bank hold interest for Americans with a love of tall stories. Bodenwerder was the birthplace of that dean of yarn spinners, Baron Münchausen. Hameln (Hamelin) is the town of the Pied Piper, immortalized by Robert Browning's poem.

"Hamelin town's" legend became so real with the years that it influenced the city's growth and character. A traveler could enter the city by the towered Ratcatcher's Gate, pass the Ratcatcher's Fountain, and stop at the Ratcatcher Inn.

Marked was the spot on the Weser where the Pied Piper lured the rats to their drowning. The narrow crooked street along which the irate piper led the town's 130 children (all but a lame boy) still prohibits the playing of pipes. The very place where the hill supposedly opened to receive the joyous children was pointed out. June 26, 1284, was fixed as the date of the piper's visit. The fateful day was annually observed by eating rat-shaped bread and chocolate rats.

At Minden, on the edge of the Teutoberg Forest, the Weser River breaks through to the plain, the Ems-Weser Canal runs westward to the Ems, and the Mittelland Canal runs eastward to the Elbe, forming vital links in Germany's inland waterway system.



VON MOLTKE, PRUSSIAN MILITARIST, DECORATES BREMEN'S CHURCH OF OUR LADY

The man who planned the "perfect" 1870 invasion of France probably never dreamed that only 75 years later Germany's outraged enemies would execute a much more massive invasion—this time of the Reich itself. This is the west portal of the Liebfrauen-Kirche in downtown Bremen, Germany's great port near the mouth of the Weser River. The city's maritime character is reflected in the boys' caps.

Note: The Weser River is shown on the National Geographic Society's Map of Germany and Its Approaches. A price list of maps may be obtained from the Society's headquarters, Washington 6, D. C.

Bulletin No. 1,
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Top-Ranking Panay, Negros, and Cebu Islands Liberated

THE 33rd and 34th islands of the Philippines group to be taken by United States forces were tiny Sanga Sanga and Bongao, in the southernmost reaches of the Sulu Archipelago (illustration, next page). In addition to MacArthur's program of seizing such strategic air and shipping control points, his men are also systematically liberating the larger islands and population centers. Three top-ranking islands to be reached recently by American troops were Panay, Negros, and Cebu, a close-knit cluster in the south-central part of the Philippines.

Panay is known for prewar sugar shipments which had made Iloilo, on the southeast coast, the busiest Philippine port next to Manila. Iloilo, with 88,000 residents, was the fourth-largest Philippine city at the time of the Japanese invasion. The growth of the port resulted largely from the shipping of sugar from neighboring Negros Island, source of three-fourths of the Philippine product. Separated from Panay by six miles or more of water, Negros had no harbors for ocean vessels.

"Panay Incident" in 1937 Acquainted Public with Name

Panay is centrally located among the Philippines. Its northern coast is only 85 miles from the nearest point of Luzon. Its area is somewhat less than that of Connecticut. Mountains on the island rise to 6,700 feet. From the uplands came hardwood and small quantities of gold and marble. The sloping plains produced cotton, coffee, chocolate, and pepper in addition to rice and sugar. The sugar season normally attracted some 200,000 islanders from Panay.

Panay's numerous bays afford good harbors for small craft, and much prewar travel about the island was by boat. Land traffic moved on good roads and on a railroad north from Iloilo to Capiz on the north coast.

Natives of Iloilo lived mostly in two-story houses which had a stone or stucco first floor. Ornate homes of Panay's sugar-cane planters were set amid palm groves on the outskirts of Iloilo. The city had streetcars and electric lights. The name Panay broke in the news when, on December 12, 1937, a United States gunboat of that name was sunk in the Yangtze River by Jap planes.

Negros Island, about half the size of Massachusetts, was not developed by the Spaniards until the past century, when the sugar-cane industry began. Sugar, though most of it was shipped from neighboring Iloilo, made the city of Bacolod. Neatly laid out with paved streets and modern buildings that housed the offices of the sugar companies, Negros' largest city, with a prewar population of about 58,000, ranked sixth in all the Philippines. Stately mansions lining the streets gave the impression of a prosperous American city.

Negros Produced Lumber, Cacao, and Copra as Well as Sugar

The city offered sharp contrast with the native settlements, particularly in the mountainous timber areas where 55 million feet of lumber a year were cut, to be hauled over the logging railroad by little locomotives with angular smokestacks. Here the Filipinos lived in small thatched huts propped on stilts.

Like other Philippine islands, Negros exported copra from its coconut plantations. It was of high quality because of the island's improved drying houses, several patented improved types of copra driers being used. The island also produced excellent cacao, but sugar was the principal crop, with hardwoods second.

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Austria's 350-mile length into France, branching at Innsbruck to run south through the Brenner Pass into Italy and north to Munich (München) and Stuttgart.

Other Austrian cities are small compared with Vienna. Second largest is Graz, southwest of Vienna, capital of Styria, mountainous province whose iron ore affords livelihood for many of the city's 153,000 people. In a narrow strip along the country's eastern border from near Vienna to near Graz extends Burgenland ("Land of Castles"), transferred from Hungary to Austria after World War I.

A hundred miles west up the Danube from Vienna, Linz—prewar population 109,000, best known for furniture—lies in the Danube plain close to Enns and Austria's automotive city, Steyr. The three constitute an industrial area repeatedly bombed by the Allies from bases in Italy.

Farther west, on the German border north of Berchtesgaden and at the edge of the Salzkammergut mountain lake resort region (illustration, cover), Salzburg shares with Vienna the glory of Austria's music achievement. Musicians, artists, composers, conductors, dancers have long flocked to Salzburg for music festivals lasting half the summer. It is Mozart's birthplace, a mountainside city of 40,000 people.

Similarly beautiful, Innsbruck, capital of the Tyrol, is a city of 65,000 in the neck of the Austrian pear. Surrounded by high mountains, it is, as its name tells, the Bridge over the Inn, on the very ancient and always important route of all traffic between Germany and Italy, via the Brenner Pass. It shares honors with Vienna and Graz as one of Austria's three university cities.

Westward a hundred miles of high Alpine beauty leads through Arlberg to Bregenz. Eastward some 60 miles is the majestic Gross Glockner, Austria's highest Alp, towering 12,461 feet.

Note: Austria appears on the Society's Map of Europe and the Mediterranean.

See also, "Austrian August—and September," in the *National Geographic Magazine* for April, 1938*; and "Salzkammergut, a Playground of Austria," April, 1937. (*Issues marked with an asterisk are included in a special list of Magazines available to teachers in packets of ten for $1.00.*)

Bulletin No. 2, April 23, 1945.

LITTLE AUSTRIA AGAIN STANDS BETWEEN GERMANY AND ITS ENEMIES TO THE SOUTHEAST

The Germans who anciently migrated eastward down the Danube established the Österreich (East Mark) from which the English name of the country is taken. In the days of the old German Empire, the Österreich was a bulwark against the pressing Slavic nations. In the present war Austria has played her old part—a final buffer for Germany against invasion from the southeast. The map shows clearly the mountainous sections of Austria, northern Italy, and southern Germany where Nazis have hinted they may make a last stand. Berchtesgaden, Hitler's mountain retreat in German Bavaria, is just over the border from Salzburg.

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San Francisco Conference Recalls City's Cosmopolitan Flavor

SAN FRANCISCO, selected as the pre-peace meeting place of the United Nations, has been for all its history a meeting place of nations. The Gold Rush that brought it into being less than a century ago, the city's position ever since as a world port, its great wealth and potentialities—these factors long have attracted to San Francisco the world's footloose opportunists and sober seekers of greener pastures. It has been a great melting pot, one of the most cosmopolitan cities of America. But do not offend the natives by calling it "Frisco."

The United Nations Conference on International Organization (UNCIO), scheduled to begin April 25, will be held in the municipally owned Opera House, situated in the expansive Civic Center about two miles down Market Street from San Francisco Bay. Surrounding the Opera House are the City Hall, Public Library, Civic Auditorium, State Building, and other public structures. Conference delegates will find the shopping, business, and hotel districts between them and the bay, along Market Street and to the north.

Turns Back on Pacific, Source of Trade

Few cities of the world—perhaps Rio de Janeiro, Istanbul, Hong Kong—can match San Francisco in beauty of setting. It fills the northern end of a narrow peninsula that separates the south half of San Francisco Bay from the Pacific Ocean. The Golden Gate (illustration, inside cover), a synonym for unapproachable natural grandeur the world over, separates the city from a sister peninsula to the north and provides the narrow opening to the immense landlocked harbor.

Though its greatness has been built largely on the shipping trade that has come into this harbor from the west, San Francisco faces east. The original settlements, that famous waterfront artery, the Embarcadero, and today's downtown sections face the bay, not the ocean. The Ferry Building with its great clock tower is the point to which the entire city is oriented. It looks across the bay to Oakland and the other bay cities.

From the Ferry Building, somewhat lessened in importance now that the eight-mile-long Bay Bridge arches the waters between Oakland and San Francisco, Market Street runs southwest for miles, directly toward Twin Peaks, the city's geographic center. Market Street—Broadway and Fifth Avenue rolled into one—divides the town, changes the direction of streets, and is zero line for street numbers. Wartime population is estimated at about 850,000.

City Was America's Western Bastion in 1941-42

North of Market lie the famed hills and foreign settlements that have given San Francisco such individuality among cities. Sightseeing delegates may sometimes be reminded of home. Frenchmen will have no trouble with menus in French restaurants of the Latin Quarter. This old world town within a town clings to the precipitous slopes of Telegraph Hill, near the northeast corner of San Francisco. To the south a few blocks is Chinatown, largest Chinese settlement out of the Orient. Slightly west rises Russian Hill, named for Russian sailors buried near by, a reminder to Soviet delegates of the days when tsarist imperial dreams embraced northern California.

Nob Hill, covered with hotels and apartment houses, once was crowned by the palatial homes of Gold Rush millionaires. The rank and file called these exalted creatures "nabobs," or "nobs" for short. Wonderful views of the city,

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Negros has a north-south length of 135 miles, and width that varies from 25 to 56 miles. A spine of mountains, running the length of the island, reaches a height of 8,000 feet at Canlaon Volcano, about 20 miles southeast of Bacolod.

Cebu Island ranks ninth in size among the Philippines. Its chief town, Cebu, was built on the site of the first Spanish settlement in the islands, served as Spanish capital until 1571, is today the Philippines' second-ranking city.

Cebu's area is a little less than that of Delaware. Provincial administration extended to many near-by islands, among them the Camotes group to the east, Mactan off the east coast, and Bantayan lying to the northwest. Total provincial population was over 1,000,000—the densest in the Philippines.

A range of mountains runs the length of the long narrow island. Greatest altitude is about 3,300 feet. Slopes are steep, and crossing except by passes difficult. Of the six passes the southernmost—from Sibonga on the east coast to Dumanjug on the west coast—is the best.

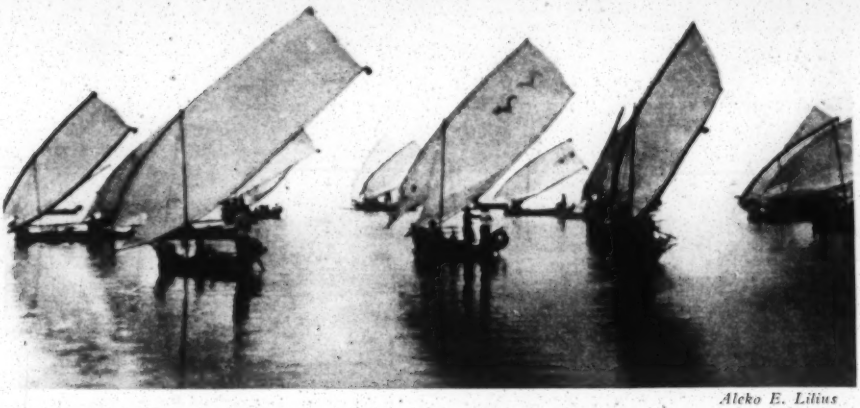
Fertile valleys yielded tobacco, sugar, cotton, rice, and abacá (so-called Manila hemp). Coconut groves fringe the shores. Despite good soil and mild climate, Cebu is rated a "poor" island, and its people found living difficult. Thousands went to neighboring Negros for seasonal jobs in the cane fields and sugar mills. Migration of land settlers to Mindanao was aided by the government.

Cebu City, with a prewar population of about 143,000, is situated in a spacious plain, midway on the eastern coastline. Its harbor is formed by the strait between Cebu Island and near-by Mactan Island, where Magellan was killed by distrustful natives. It received for export much of the produce of neighboring islands. An ancient Spanish fort and the cross reputedly planted in 1521 by Magellan on taking possession of the island reminded Cebu of its Spanish past.

Note: Cebu, Panay, and Negros are shown on the Society's Map of the Philippines.

For additional information on the Philippines, see "What Luzon Means to Uncle Sam," in the March, 1945, issue of the *Magazine;* "Mindanao, on the Road to Tokyo," November, 1944; and "Facts About the Philippines," February, 1942*; and these GEOGRAPHIC SCHOOL BULLETINS: "Palawan, Mindanao Landings Secure Sulu Sea Supply Routes," March 26, 1945; and "New War Chapter Opens in the Philippines," November 6, 1944.

Bulletin No. 3, April 23, 1945.



Aleko E. Lilius

SOUTH OF SANGA SANGA, IN THE SULUS, IS SITANKAI, WHERE BUTTERFLY-SAILED CRAFT GATHER ON A GLASSY SEA

SAVE WASTE PAPER

Paper is essential to victory. Save every scrap of it. Your local salvage committee will tell you how waste paper helps win the war.

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Geo-Graphic Brevities

EMBATTLED OKINAWA IS ISLAND OF TYPHOON-HARRIED JAP FARMERS

THE slashing in two of Okinawa, largest, most central of Japan's Ryukyu (Nansei) chain, by the U. S. Tenth Army gives American bombers bases 325 miles from the Jap mainland, 950 miles from Tokyo, 400 miles from the China coast. It also gives Allied ships an anchorage at Japan's door.

Within 800 miles of the U. S.-captured airfields of central Okinawa is the war-expanded heavy industry area of southern Japan, around the Inland Sea. This includes the shipbuilding and munitions centers of Nagasaki, Yawata, and Shimonoseki, and naval bases at Sasebo and Kure. Shanghai, Hangchow, and Nanking along China's coastal plain are less than 700 miles to the west.

The Ryukyu archipelago has 89 land units, counting its eight principal islands and all small ones with coastlines of more than 2.4 miles. It is a 700-mile string curving from Japan's main islands southwest to Formosa (Taiwan).

In land area (921 square miles) and population (about 600,000), the Ryukyus approximate Rhode Island. Most of the inhabitants are farmers who toil to make narrow areas between mountains and sea produce sugar cane, sweet potatoes, and rice. The small-scale industries of the half-dozen cities and the half-hundred villages include sugar-cane processing, silk weaving, and manufacture of lacquer ware and Panama-type hats.

The islands, reaching south almost to the Tropic of Cancer, have a warm climate, tempered by ocean breezes. August heat averages 81 degrees, winter cold, 50. Rainfall is heavy—about 80 inches a year. Typhoons in the best crop-growing months—July to October—are the one great climatic drawback.

Okinawa has been called a miniature Japan because of its resemblance to the narrow, sprawling outline of Honshu. Naha and Shuri, the two chief cities, lie three miles apart near the southwestern tip. Naha, Japanese capital, chief port, and seat of a naval station, had 60,000 people before the war. Masonry buildings, designed to weather typhoons, housed government and business offices. The port carried on a busy trade, with sugar the chief export.

Shuri, adjoining Naha, inland, was the ancient capital. Farmers cultivate walled areas around houses in the vicinity of the old feudal castle. A railroad joins Naha, Shuri, and Itoman, a fishing village 12 miles to the south.

Japan conquered the islands in 1609, changing the name from Loochoo to Ryukyu, as the Jap tongue cannot achieve an L. The islands were not formally annexed to the empire until 1876.

Note: The Ryukyu Islands are shown on the Society's Map of Southeast Asia. Okinawa appears in a large-scale inset.

See also, "Japan and the Pacific," in the *Magazine* for April, 1944; and "Hidden Key to the Pacific," June, 1942*; and, in the GEOGRAPHIC SCHOOL BULLETINS, October 30, 1944, "Battered Ryukyu Islands at Japan's Doorstep." The May, 1945, issue of the *Magazine* includes "Peacetime Rambles in the Ryukyus."

* * * * *

DATE, ADOPTED FRUIT FROM THE TROPICS, THRIVES IN THE UNITED STATES

WITH war needs increasing the demand for sugar, the American date-growing industry, begun about 40 years ago, is proving itself of great value. Not only do home-grown dates fill in the chinks in war-restricted dessert menus, but industrial alcohol is produced from the culls of the date crop.

UMI

the bay, the Golden Gate, and the lands across the bay can be had from these hills. These and many other eminences have given San Francisco the title, "the tilted city," and are the reason for the quaint cable-pulled streetcars (illustration, below) that visitors remember long after they forget the mere grandeur of the area.

South of Market is the distinctive Mission district, named for Dolores Mission. This mission and the Presidio were established in 1776 by the Spanish from Mexico as their northernmost coastal outpost. In 1846 the tiny settlement was taken by the United States. The Presidio became an outpost fort of the States, as it still is. Since the start of the current war, San Francisco has experienced a great boom as the transshipment point for men and supplies going to the Pacific front. The city's powerful defenses were alerted for months on end for any attack the Japs might have mounted against America's western bastion.

Instead of a wartime bombing attack, San Francisco's great calamity—the earthquake—had come 40 years before. It and the subsequent fire leveled four square miles of the city's heart—destruction comparable to that caused by today's heavier bombing runs on Jap and German cities. San Franciscans immediately started rebuilding. With slogans of "Don't talk earthquake, talk business," 20,000 new buildings were put up within three years.

The entire western, or Pacific, side of the city, with the exception of parks and military areas, is residential. Spacious Golden Gate Park, one of the finest municipal parks in the world, divides two huge residential areas. The Presidio takes up the northern tip of the peninsula.

Note: San Francisco is shown on the National Geographic Society's Map of the Southwestern United States.

See also, "San Francisco: Gibraltar of the West Coast," in the *National Geographic Magazine* for March, 1943*; "California's Coastal Redwood Realm" and "The Golden Gate, and Redwood Evergreens" (17 color photographs), February, 1939*; and "Northern California at Work" and "California — 85 Years After the Gold Rush" (23 color photographs), March, 1936.

Bulletin No. 4, April 23, 1945.

U. S. Navy, Official

OUT-OF-TOWN SAILORS ENJOY HELPING SWING A SAN FRANCISCO CABLE CAR AROUND ITS HILL-BOTTOM TURNTABLE

Production of dates in the United States has increased to an annual harvest of over 20 million pounds. This amount is four times the crop of ten years ago.

Dates are successfully raised in the southwest where the annual yield is now nearly half of the prewar import figure. California has more than 3,500 acres planted to date palms. In the Coachella Valley, where the first commercial groves were set out, date culture is the chief industry. About 90 per cent of the U. S. crop is grown there. Thousands of date palms dot the Imperial Valley to the south. Arizona has 700 acres in the vicinity of Phoenix and Yuma.

Early in the present century government scientists traveled to North African oases, to the valley of the Nile, and to Iraq and Baluchistan to find the date palm best adapted to various U. S. climates and soils. Thousands of date palm offshoots were brought back for domestication in California and Arizona.

The United States has long imported most of its dates from Iraq, which supplied 40 million of the 45 million pounds imported in recent peacetime years. Iran and China were other sources. Before the war, ships bearing the first of Iraq's crop each season raced to the United States. The first cargoes brought the top prices. The annual 10,000-mile date-race, first run in 1899, started at Basra, at the head of the Persian Gulf, and finished at Brooklyn docks.

The date palm grows 60 to 100 feet amid hot desert conditions. It will produce from 100 to 400 pounds of dates a year. Some bunches weigh 40 pounds and have to be propped up. An acre may produce more than 5,000 pounds.

Dates have been prized from antiquity as one of the most nourishing foods. They were raised along the Euphrates more than 4,000 years ago. Arabs, Persians, and North Africans (illustration, below) eat them. They are fed to dogs, horses, and camels. Egypt alone has over 5,000,000 date palms. Spanish missionaries brought the date palm to America in the latter half of the 18th century.

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Maynard Owen Williams

SHEAVES OF FINE WHITE FLOWERS HELP PRODUCE THE RICH BROWN DATE

Displayed for sale to date growers in the market at Sfax, on Tunisia's eastern Mediterranean coast, are clusters of waxy-white blossoms of the male date palm. The *Phoenix dactylifera*—date palm to most of the people who eat its sweet, dark brown fruit—differs from the majority of the palm family chiefly in that its male and female blossoms grow on different trees. The ancient Assyrians cultivated dates by cross-fertilization a thousand years before Europeans realized that sex exists in plants. Bees and breezes being undependable as carriers of pollen, the ancient date growers tied blossoms from male date trees over the greenish-white blossoms of the female tree. This method is still an important part of date culture.

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